

## Press Release

April 3, 2006

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# MORI-AP, the Conversational Automatic Programming System Which Runs on PCs, Has Been Commercialized.

## Machining Programs for CNC Lathes and Multi-Axis Machines Can Easily be Made on Computers.

### Functions, Operability and Data are Completely Compatible with Those Created on MAPPS II/III.

Mori Seiki Co., Ltd. has commercialized MORI-AP, the conversational automatic programming system which runs on computers.

MORI-AP is an application system whose functions, operability and data are perfectly compatible with the MAPPS II/III conversational programming system. The machining program data created on your PC can be transferred to MAPPS II/III, which is installed in CNC lathes and multi-axis machines. After you finish programming in your office, you will be able to start machining right away.

Also, data which are changed on MAPPS II/III, such as cutting conditions, can be transferred to your computer and re-edited, allowing the data created using the conversational programming function to be centrally managed.

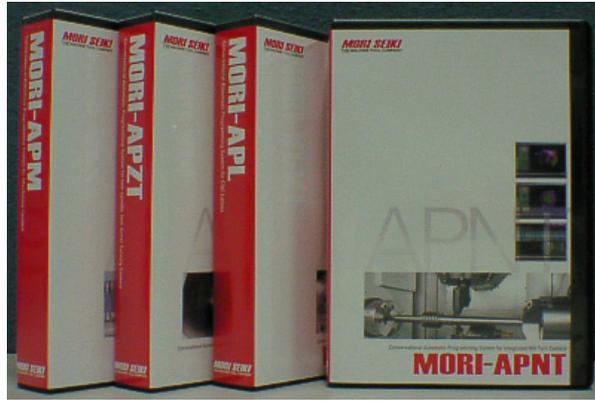
What's more, using the MORI-SERVER allows input/output of the data between the machine and your computer through the LAN cable connection. This achieves fast data editing and exchanges.

The MORI-AP line-up has 4 different packages: MORI-APL (for CNC lathes), MORI-APM (for machining centers), MORI-APZT (for opposite 2-turret lathes) and MORI-APNT (for integrated mill turn centers).

Mori Seiki's revolutionary conversational automatic programming system, MORI-AP, allows operations which previously had to be done at the factory to be performed in your office.

#### ■ Product Type

MORI-APL	For CNC lathes (suitable for C-axis, Y-axis and sub-spindle specifications)
MORI-APM	For machining centers (suitable for vertical, horizontal and additional 4-axis indexing)
MORI-APZT	For opposite 2-turret lathes (suitable for balance cutting and simultaneous operation of two turrets)
MORI-APNT	For integrated mill turn centers (suitable for machining of slant faces and slant holes)



## ■ Major Features

1. Abundant machining menu
2. Programming that accommodates high-speed fixed cycles (options are needed for the MAPPS application system).
3. Island shapes/open pockets (options are needed for the MAPPS application system)
4. Grooving width offset/completely automatic nose-radius compensation (options are needed for the NC application system)
5. Strong intersection calculation ability
6. Simultaneous programming on the machine and the PC, data compatibility
7. Available in multiple languages (13 languages)

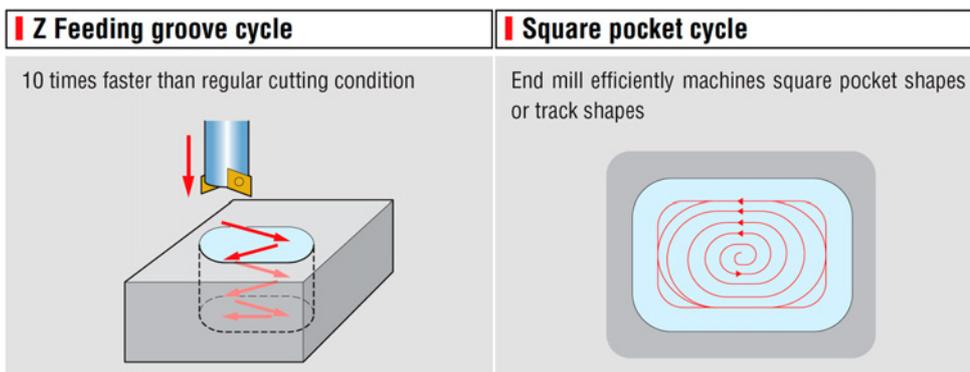
## ■ Features

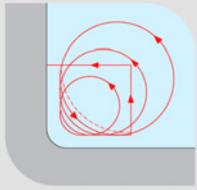
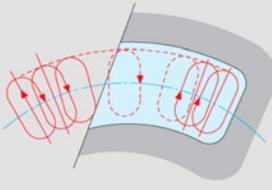
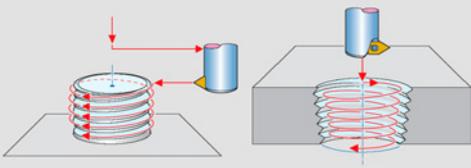
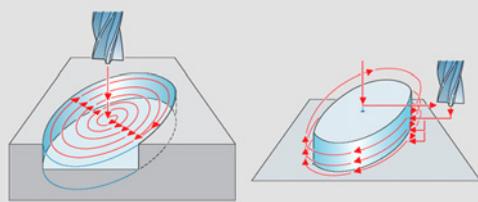
### 1. Abundant machining menu

Even programming for complex-shaped workpieces can be done easily, dramatically reducing programming time.

### 2. Programming that accommodates high-speed fixed cycles

The high-speed fixed cycle macro, which automatically generates the optimum tool paths for high-speed machining, can be called from the conversational menu.

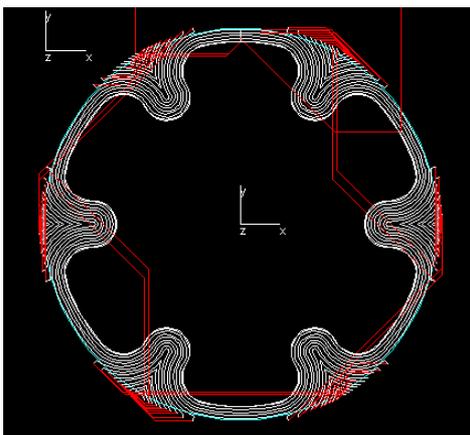


<p><b>Corner pocket cycle</b></p> <p>High speed corner cutting after square pocket cycle</p> 	<p><b>Trochoid cycle</b></p> <p>Machining a groove, circular groove, wide width groove, with an end mill moving in a circular motion</p> 
<p><b>Thread milling cycle</b></p> <p>Machining inner and outer diameter screws</p> 	<p><b>Elliptical milling cycle</b></p> <p>Machining of oval shapes using the end mill</p> 

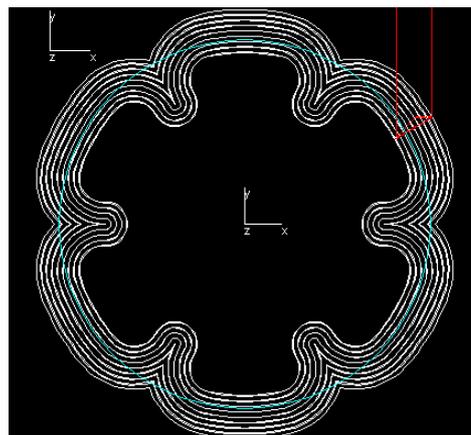
### 3. Island shapes/open pockets

The number of island shapes has increased dramatically (up to 127 are available), and complex pocket machining can be programmed in short time. Also, the optimum tool paths will be generated based on the material and product shapes, allowing the generation of machining programs for complex inlet and island shapes with no waste.

This also contributes to a reduction in machining time. It usually takes 24 minutes to generate tool paths using a general conversational system, but it only takes 16 minutes and 44 seconds with MAPPS III, achieving allowing a 30% reduction in machining time.



MORI-AP



Conventional

#### 4. Grooving width offset/completely automatic nose-radius compensation

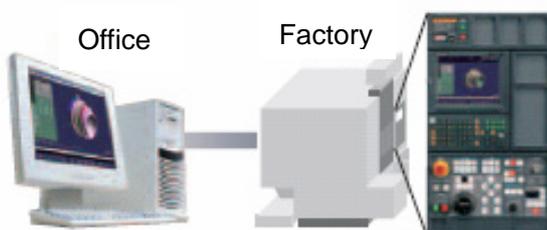
NC programs which accommodate groove width compensation and automatic nose-radius compensation functions can be created, allowing easy adjustments of tool offset such as nose-radius offset during turning and tool width offset during grooving.

#### 5. Strong intersection calculation ability

Simply by entering the data according to the diagram, the intersections will be calculated automatically, even when there are multiple unknown coordinate values. Since no manual calculations are necessary, programs which typically used to take up to 30 minutes to complete using general conversational systems can now be done in 3.

#### 6. Simultaneous programming on the machine and the PC, data compatibility

MORI-AP is completely compatible with the MAPPS II/III conversational programming, functions, operation and conversational program data on the machine operating panel. Conversational program data generated at your computer can be transferred to MAPPS II/III and used for machining without any changes. Also, data such as changes in cutting conditions during machining can be sent to your PC and edited there.



#### 7. Available in multiple languages (13 languages)

Comes in 13 languages: English, Japanese, German, French, Italian, Spanish, Portuguese, Dutch, Swedish, Chinese (Traditional), Chinese (Simplified), Korean and Turkish.

#### ■Operating Environment

O/S	-Windows®2000 Professional (Service Pack 4) -Windows®XP Professional (Service Pack 2)
CPU	Pentium® III 700 MHz or higher
Memory	512 MB or higher
Hard Disk	At least 250 MB free space is required
Monitor	XGA or higher

#### ■Other

1. Available from 1 April 2006.